

# 9

SEQUENCE LISTING

<110> Schaffer, Arthur  
Levin, Ilan  
Petreikov, Marina  
Bar, Moshe

<120> Controlling Starch Synthesis

<130> U-013220-5

<140> US 09/744,085

<141> 2001-03-26

<150> PCT/IL99/00396

<151> 1999-07-19

<150> IL 125425

<151> 1998-07-20

<160> 10

<170> PatentIn Ver. 2.1

<210> 1

<211> 23

<212> DNA

<213> Lycopersicon hirsutum

<400> 1

gttcatttgg ggagagtgg cac

23

<210> 2

<211> 23

<212> DNA

<213> Lycopersicon hirsutum

<400> 2

gggcagcaga attgtactgt gtc

23

<210> 3

<211> 22

<212> DNA

<213> Lycopersicon hirsutum

<400> 3

ctattggtgg ttgttacgg gt

22

<210> 4

<211> 22

<212> DNA

<213> Lycopersicon hirsutum

09744085-032201

09744085-032601

<400> 4  
cactgttcca atatcctccc ag 22

<210> 5  
<211> 22  
<212> DNA  
<213> Lycopersicon hirsutum

<400> 5  
gcatattgct cgtgcgtaca ac 22

<210> 6  
<211> 22  
<212> DNA  
<213> Lycopersicon hirsutum

<400> 6  
cttttcgctg aaggacatga cc 22

<210> 7  
<211> 23  
<212> DNA  
<213> Lycopersicon hirsutum

<400> 7  
tttcgtcttc tcctctcgcc gga 23

<210> 8  
<211> 23  
<212> DNA  
<213> Lycopersicon hirsutum

<400> 8  
ggcgatttag agaggcagag ttg 23

<210> 9  
<211> 1563  
<212> DNA  
<213> Lycopersicon hirsutum

<220>  
<221> CDS  
<222> (1)..(1563)

<400> 9  
atg aaa tgc acg gtt cat ttg ggg aga gtg agc act ggt ggc ttt aac 48  
Met Lys Ser Thr Val His Leu Gly Arg Val Ser Thr Gly Gly Phe Asn  
1 5 10 15

aat gga gag aag gag att ttt ggg gag aag atg aga ggg agt ttg aac 96

0-9-67-44-2

tgt gca cca gct gag gac agc cga gca tca gat ttt ggg ctg gtc aag	768
Cys Ala Pro Ala Glu Asp Ser Arg Ala Ser Asp Phe Gly Leu Val Lys	
245 250 255	
att gac agc aga ggc aga gtt gtc cag ttt gct gaa aaa cca aaa ggt	816
Ile Asp Ser Arg Gly Arg Val Val Gln Phe Ala Glu Lys Pro Lys Gly	
260 265 270	
ttt gag ctt aaa gca atg caa gta gat act act ctt gtt gga tta tct	864
Phe Glu Leu Lys Ala Met Gln Val Asp Thr Thr Leu Val Gly Leu Ser	
275 280 285	
cca caa gat gcg aag aaa tcc cct tat att gct tca atg gga gtt tat	912
Pro Gln Asp Ala Lys Lys Ser Pro Tyr Ile Ala Ser Met Gly Val Tyr	
290 295 300	
gtt ttc aag aca gat gta ttg ctg aag ctc ttg aaa tgg agc tac ccc	960
Val Phe Lys Thr Asp Val Leu Leu Lys Leu Leu Lys Trp Ser Tyr Pro	
305 310 315 320	
act tct aat gat ttt ggc tct gaa att ata cca gca gct att gat gat	1008
Thr Ser Asn Asp Phe Gly Ser Glu Ile Ile Pro Ala Ala Ile Asp Asp	
325 330 335	
tac aat gtc caa gca tac att ttc aaa gac tat tgg gag gac att gga	1056
Tyr Asn Val Gln Ala Tyr Ile Phe Lys Asp Tyr Trp Glu Asp Ile Gly	
340 345 350	
aca att aaa tct ttc tat aat gct agc ttg gcg ctc aca caa gag ttt	1104
Thr Ile Lys Ser Phe Tyr Asn Ala Ser Leu Ala Leu Thr Gln Glu Phe	
355 360 365	
cca gag ttc caa ttt tat gat cca aaa aca cct ttt tac aca tct cct	1152
Pro Glu Phe Gln Phe Tyr Asp Pro Lys Thr Pro Phe Tyr Thr Ser Pro	
370 375 380	
agg ttc ctt cca cca acc aag ata gac aat tgc aag att aag gat gcc	1200
Arg Phe Leu Pro Pro Thr Lys Ile Asp Asn Cys Lys Ile Lys Asp Ala	
385 390 395 400	
ata att tct cat gga tgt ttc ttg cga gat tgc tct gtg gaa cac tcc	1248
Ile Ile Ser His Gly Cys Phe Leu Arg Asp Cys Ser Val Glu His Ser	
405 410 415	
ata gtg ggt gaa aga tca cgc tta gac tgt ggt gtt gaa ctg aag gat	1296
Ile Val Gly Glu Arg Ser Arg Leu Asp Cys Gly Val Glu Leu Lys Asp	
420 425 430	
act ttc atg atg gga gca gac tac tac caa aca gaa tct gag att gcc	1344
Thr Phe Met Met Gly Ala Asp Tyr Tyr Gln Thr Glu Ser Glu Ile Ala	
435 440 445	
tcc ctg tta gca gag ggg aaa gta ccg att ggg att ggg gaa aat aca	1392
Ser Leu Leu Ala Glu Gly Lys Val Pro Ile Gly Ile Gly Glu Asn Thr	
450 455 460	

aaa ata agg aaa tgt atc att gac aag aac gca aag ata gga aaa aat 1440  
 Lys Ile Arg Lys Cys Ile Ile Asp Lys Asn Ala Lys Ile Gly Lys Asn  
 465 470 475 480

gtt tca atc att aat aaa gat ggt gtt caa gag gca gac cga cca gag 1488  
 Val Ser Ile Ile Asn Lys Asp Gly Val Gln Glu Ala Asp Arg Pro Glu  
 485 490 495

gaa gga ttc tac ata cga tca ggg ata acc att ata tca gag aaa gcc 1536  
 Glu Gly Phe Tyr Ile Arg Ser Gly Ile Thr Ile Ile Ser Glu Lys Ala  
 500 505 510

aca att aga gat gga aca gtt ata tga 1563  
 Thr Ile Arg Asp Gly Thr Val Ile  
 515 520

<210> 10

<211> 520

<212> PRT

<213> Lycopersicon hirsutum

<400> 10

Met Lys Ser Thr Val His Leu Gly Arg Val Ser Thr Gly Gly Phe Asn  
 1 5 10 15

Asn Gly Glu Lys Glu Ile Phe Gly Glu Lys Met Arg Gly Ser Leu Asn  
 20 25 30

Asn Asn Leu Arg Ile Asn Gln Leu Ser Lys Ser Leu Lys Leu Glu Lys  
 35 40 45

Lys Glu Lys Lys Ile Lys Pro Gly Val Ala Tyr Ser Val Ile Thr Thr  
 50 55 60

Glu Asn Asp Thr Glu Thr Val Phe Val Asp Met Pro Arg Leu Glu Arg  
 65 70 75 80

Arg Arg Ala Asn Pro Lys Asp Val Ala Ala Val Ile Leu Gly Gly Gly  
 85 90 95

Glu Gly Thr Lys Leu Phe Pro Leu Thr Ser Arg Thr Ala Thr Pro Ala  
 100 105 110

Val Pro Val Gly Gly Cys Tyr Arg Leu Ile Asp Ile Pro Met Ser Asn  
 115 120 125

Cys Ile Asn Ser Ala Ile Asn Lys Ile Phe Val Leu Thr Gln Tyr Asn  
 130 135 140

Ser Ala Ala Leu Asn Arg His Ile Ala Arg Thr Tyr Phe Gly Asn Gly  
 145 150 155 160

Val Ser Phe Gly Asp Gly Phe Val Glu Val Leu Ala Ala Thr Gln Thr  
 165 170 175

09744085 032604

Pro	Gly	Glu	Ala	Gly	Lys	Lys	Trp	Phe	Gln	Gly	Thr	Ala	Asp	Ala	Val	180	185	190
Arg	Lys	Phe	Ile	Trp	Val	Phe	Glu	Asp	Ala	Lys	Asn	Lys	Asn	Ile	Glu	195	200	205
Asn	Ile	Leu	Val	Leu	Ser	Gly	Asp	His	Leu	Tyr	Arg	Met	Asp	Tyr	Met	210	215	220
Glu	Leu	Val	Gln	Asn	His	Ile	Asp	Arg	Asn	Ala	Asp	Ile	Thr	Leu	Ser	225	230	235
Cys	Ala	Pro	Ala	Glu	Asp	Ser	Arg	Ala	Ser	Asp	Phe	Gly	Leu	Val	Lys	245	250	255
Ile	Asp	Ser	Arg	Gly	Arg	Val	Val	Gln	Phe	Ala	Glu	Lys	Pro	Lys	Gly	260	265	270
Phe	Glu	Leu	Lys	Ala	Met	Gln	Val	Asp	Thr	Thr	Leu	Val	Gly	Leu	Ser	275	280	285
Pro	Gln	Asp	Ala	Lys	Lys	Ser	Pro	Tyr	Ile	Ala	Ser	Met	Gly	Val	Tyr	290	295	300
Val	Phe	Lys	Thr	Asp	Val	Leu	Leu	Lys	Leu	Leu	Lys	Trp	Ser	Tyr	Pro	305	310	315
Thr	Ser	Asn	Asp	Phe	Gly	Ser	Glu	Ile	Ile	Pro	Ala	Ala	Ile	Asp	Asp	325	330	335
Tyr	Asn	Val	Gln	Ala	Tyr	Ile	Phe	Lys	Asp	Tyr	Trp	Glu	Asp	Ile	Gly	340	345	350
Thr	Ile	Lys	Ser	Phe	Tyr	Asn	Ala	Ser	Leu	Ala	Leu	Thr	Gln	Glu	Phe	355	360	365
Pro	Glu	Phe	Gln	Phe	Tyr	Asp	Pro	Lys	Thr	Pro	Phe	Tyr	Thr	Ser	Pro	370	375	380
Arg	Phe	Leu	Pro	Pro	Thr	Lys	Ile	Asp	Asn	Cys	Lys	Ile	Lys	Asp	Ala	385	390	395
Ile	Ile	Ser	His	Gly	Cys	Phe	Leu	Arg	Asp	Cys	Ser	Val	Glu	His	Ser	405	410	415
Ile	Val	Gly	Glu	Arg	Ser	Arg	Leu	Asp	Cys	Gly	Val	Glu	Leu	Lys	Asp	420	425	430
Thr	Phe	Met	Met	Gly	Ala	Asp	Tyr	Tyr	Gln	Thr	Glu	Ser	Glu	Ile	Ala	435	440	445
Ser	Leu	Leu	Ala	Glu	Gly	Lys	Val	Pro	Ile	Gly	Ile	Gly	Glu	Asn	Thr	450	455	460
Lys	Ile	Arg	Lys	Cys	Ile	Ile	Asp	Lys	Asn	Ala	Lys	Ile	Gly	Lys	Asn			

465

470

475

480

Val Ser Ile Ile Asn Lys Asp Gly Val Gln Glu Ala Asp Arg Pro Glu  
485 490 495

Glu Gly Phe Tyr Ile Arg Ser Gly Ile Thr Ile Ile Ser Glu Lys Ala  
500 505 510

Thr Ile Arg Asp Gly Thr Val Ile  
515 520

09744085-032601